

## Supporting Information

### New Bismaleimide Resin Toughened by In Situ Ring-Opening Polymer of Cyclic Butylene Terephthalate Oligomer with Unique Organotin Initiator

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**Table S1.** The detail formulations of resins

System	Weight ratio			Initiator
	BDM	DBA	CBT	
BD	100	74	0	0
3BCD/CBT-BD	100	74	3	0.012
5BCD/CBT-BD	100	74	5	0.02
7BCD/CBT-BD	100	74	7	0.028
10BCD/CBT-BD	100	74	10	0.04
15BCD/CBT-BD	100	74	15	0.06
3HSiSn/CBT-BD	100	74	3	0.024
5HSiSn/CBT-BD	100	74	5	0.04
7HSiSn/CBT-BD	100	74	7	0.056
10HSiSn/CBT-BD	100	74	10	0.08
15HSiSn/CBT-BD	100	74	15	0.12

**Table S2.** The typical data of PBTs

	$T_m$ (°C)	$\Delta H$ (J·g <sup>-1</sup> )	$\chi_{\Delta H}$ (%)	$[\eta]$ (dL/g)	$\overline{M}_n$	$T_g$
PBT(BCD)	224.6	65.50	46.4	1.08	29759	53.0
PBT(HSiSn)	226.0	56.96	40.3	0.75	18418	49.1
L-PBT(BCD)	217.6	65.25	45.9	0.94	24790	50.8
L-PBT(HSiSn)	216.4	51.19	36.1	0.71	17136	48.5

**Table S3.** The typical data of original and modified BD resins.

Resin	$T_{di}$ (°C)	$T_{max}$ (°C)	$Y_c$ @ 800 °C (wt%)	
			Experimental	Theoretical
BD	398.0	447.3	25.12	--
3BCD/CBT-BD	381.2	444.0	30.90	24.57
5BCD/CBT-BD	375.0	447.2	28.63	24.20
10BCD/CBT-BD	371.0	448.9	35.22	23.27
15BCD/CBT-BD	366.0	449.0	32.24	22.35
3HSiSn/CBT-BD	398.0	438.3	25.13	24.493
5HSiSn/CBT-BD	399.8	440.6	30.81	24.075
10HSiSn/CBT-BD	399.1	447.2	37.40	23.03
15HSiSn/CBT-BD	390.7	444.0	32.35	21.985
L-PBT(BCD)	352.9	398.7	6.63	--
L-PBT(HSiSn)	364.5	396.3	4.22	--